BACKGROUND

- The acute and chronic consequences of hepatitis B virus (HBV) infection are major health problems.

- The Centers for Disease Control and Prevention (CDC) estimates **200,000-300,000** new HBV infections occur each year in the U.S.

- Approximately **1-1.25 million** persons have **chronic HBV** in the U.S. and are potentially infectious to others.

- Many chronically infected persons are at risk of long-term sequelae such as **chronic liver disease** and **liver cancer**. Each year, approximately **4,000-5,000** of these persons die from **chronic liver disease**.

- At least **50%** of persons who become infected have no symptoms and may not know they have it and yet may be able to infect others. Even if people have symptoms, unless they have jaundice, the symptoms are flu-like (fatigue, abdominal pain, joint pain, and loss of appetite).

- Of the approximately four million births in the U.S. each year, an estimated **19,000** occur to HBV-infected women. Unless these infants receive appropriate post-exposure prophylaxis, transmission of HBV from their mothers results in up to **90%** of these infants becoming infected; of those infected, **90%** will become **chronic carriers**. Up to **25%** of the infants who become chronically infected will die from **primary hepatocellular carcinoma** or **cirrhosis** of the liver, usually as adults.

- Immunization with hepatitis B vaccine is the most effective way to prevent HBV infection. **Perinatal transmission** of HBV can usually be prevented if HBsAg-positive pregnant women are *identified* and their infants receive appropriate post-exposure prophylaxis, which consists of hepatitis B immune globulin (HBIG) *and* hepatitis B vaccine, shortly after birth, followed by additional doses of vaccine at 1-2 months and 6 months of age for full protection. CDC recommends testing <u>all</u> pregnant women for HBV early in <u>each</u> pregnancy. Once a person is infected with HBV, hepatitis B vaccine will not help him/her.

- In late 1989, the Washington State Department of Health (DOH) received grant funds from CDC to establish a perinatal hepatitis B prevention program. Such a program exists in all states and several U.S. territories.

PROGRAM GOAL AND OBJECTIVES

The Perinatal Hepatitis B Prevention Program's overall goal is ***to reduce the incidence of hepatitis B in infants born to infected (HBsAg-positive) mothers***. Achievement of this goal involves **identifying HBsAg-positive pregnant women** and their **household/sexual contacts** *and* **establishing an effective follow-up system to assure that infants born to HBsAg-positive mothers receive appropriate post-exposure prophylaxis and susceptible contacts receive a three-dose series of hepatitis B vaccine**. Appropriate post-exposure prophylaxis for these infants includes hepatitis B immune globulin (HBIG) and hepatitis B vaccine, shortly after birth, followed by 2 additional doses of vaccine (at 1-2 months and 6 months of age).

Objectives to attain this goal include:

- Assure that at least **100%** of all pregnant women who deliver are screened for HBsAg prenatally or at delivery.

- Assure that **95%** of expected births to HBsAg-positive mothers are identified.

- Assure that at least **95%** of infants born to identified HBsAg-positive mothers receive hepatitis B immune globulin (HBIG) *and* Dose #1 of hepatitis B vaccine within 7 days of birth *and* complete the 3-dose hepatitis B vaccine series by 6-8 months of age.

- Assure that at least **90%** of *susceptible* sexual partner(s) and household contacts of identified HBsAg-positive pregnant women complete the 3-dose hepatitis B vaccine series.

GUIDELINES FOR HOSPITALS

1. Develop and follow a written policy to screen **every** pregnant woman for HBsAg who presents for delivery with an unknown hepatitis B status (e.g., women with no prenatal care or those not tested by their health care provider).

2. Develop and follow a written policy which addresses the following:
    - If a pregnant woman is **HBsAg-positive**, administer HBIG and Dose #1 of hepatitis B vaccine to her infant within 12 hours following birth.
    - If the test result is pending at the time of delivery, administer Dose #1 of hepatitis B vaccine within 12 hours following birth. If the test result comes back later but *prior to* discharge and is **positive**, administer HBIG to this infant as soon as possible.
    - If the result comes back *after* discharge and is **positive**, notify the health care provider of the mother and infant regarding the need for the infant to receive HBIG within 7 days following birth and the need for medical follow-up of the mother and her household and sexual contacts.
    - Document mother's HBsAg-positive status and immunization of the infant with HBIG and Dose #1 of hepatitis B vaccine at the hospital and transfer this information to the pediatric care provider.

3. **Notify the local health jurisdiction (LHJ) of the birth of an infant to an HBsAg-positive mother** so appropriate follow-up can be assured for the infant and the mother's household and sexual contacts (*HBsAg-positive pregnant women became a notifiable condition in 12/00 according to WAC 246-101-301*).

4. Counsel **every** HBsAg-positive woman who is pregnant or who has just delivered about:
    - Routes of transmission and prevention of transmission
    - Need for her infant to receive HBIG and hepatitis B vaccine (within 12 hours of birth) and 2 additional doses of hepatitis B vaccine at 1-2 months of age and 6 months of age
    - Need for post-vaccine screening for her infant (at 3-9 months after Dose #3) to confirm the infant is protected and not infected
    - Need for screening of household and sexual contacts
    - Need for a 3-dose series of hepatitis B vaccine for her household and sexual contacts (if *susceptible*) at intervals of 0, 1-2, and 4-6 months

5. To reinforce counseling, provide informational materials about hepatitis B.